

THE SUBSPECIES OF *TYPOCERUS LUNATUS*, A CERAMBYCID BEETLE
(COLEOPTERA, CERAMBYCIDAE)

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Several years ago, while arranging the insect collection of the Virginia Agricultural Experiment Station, I noticed that specimens of *Typocerus lunatus* (F.) from localities in western Virginia differed somewhat in color pattern from beetles of the same species collected in the Virginia Coastal Plain. Since then, as the occasion permitted, I have examined the material of *lunatus* in various museum collections and have determined that the species consists of two distinct color pattern types, each occupying a geographic range exclusive of the other and thereby qualifying for recognition as valid subspecies. Although the recognition of such forms has not been widely practiced in the case of American beetles, it seems likely that many of the entities currently considered full species will ultimately be shown to be but geographic races of widespread and variable forms. This may be especially true in respect to species with distinct and complex color patterns.

Through the generous cooperation of Drs. Ross H. Arnett, W. L. Brown, Jr., Mont A. Cazier, Henry Dietrich, J. M. Grayson, and M. W. Sanderson, I have seen all of the specimens of *T. lunatus* in the collections of the United States National Museum, (135), the American Museum of Natural History (59), Cornell University (45), the Illinois Natural History Survey (16), the Museum of Comparative Zoology (11), and the Virginia Agricultural Experiment Station (20)—a total of 286 beetles. In addition, Dr. D. L. Wray kindly supplied sketches of specimens in the collection of the North Carolina Department of Agriculture.

Although the number of specimens thus recorded is fairly large, the distribution of material is unfortunately quite uneven. Much of it comes from the vicinity of Washington, D. C., with a few long series from other localities, and but very little from the Middle Western States. Still, there is enough distributional data to provide a general picture of the ranges of the two races, and imperfections in our knowledge about exact limits will eventually be ironed out by additional collecting.

In the material which I have seen, typical examples of both subspecies, as well as various degrees of intermediates, are represented from several localities such as Washington, D. C., and Raleigh, North Carolina. Whenever the series have been adequate for the purpose, assignment of such mixed populations was made on the basis of dominance. For example, in a series from Nelson County, Virginia, 3 individuals out of 21 are referable to *lunatus*, the other 18 to *fractus*, and the latter name is thus considered applicable to that local population. Allocation of single specimens from marginal localities has been made tentatively, influenced by a consideration of the geographic probability involved. At a subspecific level, occasional occurrences of one

color type within the range of the other (as observed several times in this study) do not, of course, seriously militate against the usefulness of the subspecific category.

The genus *Typocerus* has been adequately treated in the admirable monograph of the Lepturini by Swain and Hopping (1928). For this reason a detailed description of the species need not be introduced.

***Typocerus lunatus lunatus* (Fabricius)**

Figure 1

Leptura lunata Fabricius, 1801, Syst. Eleuth., vol. 2, p. 360.

Typocerus lunatus Aurivillius, 1912, Coleopt. Cat., pars 39, p. 246.—Swain and Hopping, 1928, Nat. Mus. Canada, Bull. 52, p. 33.

Typocerus lunulatus Leng, 1920, Catalog. Coleopt., p. 274.—Brimley, 1938, Insects of North Carolina, p. 213 (in part).

Diagnosis.—Basal spots of elytra lunate or bent at a right angle, tending to be more orange or orange-red; body averaging slightly larger than in *T. l. fractus*.

Discussion.—The original description of this beetle leaves no doubt of its identity. The type specimen was received from the French consul Bose, most of whose collections were made in the vicinity of Charleston, South Carolina, which may reasonably be considered the type locality. No specimens have been seen from that region, but Charleston lies well within the range of the typical subspecies as here defined.

It is a matter of interest that the dichotomy of pattern in this species escaped the critical eye of T. L. Casey, a situation perhaps explainable by the fact that only within the past fifty years have many inland specimens made their way into collections. The only literature to color variation in *lunatus* which I have found is that of Swain and Hopping (op. cit., p. 33), who observed that the elytral pattern consists of four basal spots which are often merged into lunate markings; their illustration is of a typical *T. l. lunatus*.

Distribution.—The Coastal Plain of southeastern United States, from southeastern Pennsylvania to northern Florida, thence west as far as the Colorado River in Texas. Intergradation with *T. l. fractus* takes place along the Fall Line in the Middle Atlantic States. Information is now desirable on the following points: does *lunatus* extend farther southward into peninsular Florida, and does it occur on the Del-Mar-Va peninsula or southern New Jersey as might be anticipated on the basis of the Pennsylvania record?

Specimens have been examined from the following localities:

PENNSYLVANIA: Dauphin Co., Hummelstown (4). MARYLAND: Montgomery Co., Glen Echo (2). Prince Georges Co., Bladensburg, (1), Beltsville (1). DISTRICT OF COLUMBIA: Washington (2). VIRGINIA: Arlington Co.:

Fig. 1: sketch of color pattern, dorsal aspect, of *Typocerus lunatus lunatus* (Fabr.). Fig. 2: same, *Typocerus lunatus fractus*, n. subsp. Fig. 3: map showing localities from which specimens of *T. lunatus* have been examined. Triangles in the shaded distribution represent *T. l. lunatus*; spots, *T. l. fractus*; crosses intermediate samples.



Glencaryn (4). Fairfax Co.: Falls Church (4), Barcroft (1), Mount Vernon (3). Spotsylvania Co., Fredericksburg (2). New Kent Co.: no precise locality (7). Nansemond Co., Holland (6). NORTH CAROLINA: Wake County, Raleigh (4). Northampton Co., Pendleton (1). Brunswick Co., Leland (1). GEORGIA: Clarke Co., no precise locality (1). Charlton Co., Okfefenokee Swamp (1). Tift Co., Tifton (2). FLORIDA: Duval Co., St. Nicholas (1), Jacksonville (1). Putnam Co., Welaka (2). County undetermined: Fort Capron (1). ALABAMA: Mobile Co.: Mobile (7). Washington Co., Leroy (1). MISSISSIPPI: Jackson Co., Ocean Springs (1). George Co., Lucedale (14). Harrison Co., Biloxi (1). Forrest Co., Hattiesburg (3). Perry Co., Richton (1). LOUISIANA: St. Tammany Par., Covington (2). Natchitoches Par., Vowell's Mill (8). ARKANSAS: Garland Co., Hot Springs (3). TEXAS: Angelina Co., Lufkin (20). Bastrop Co., Bastrop (2). Brazos Co., College Station (2). Lee Co., without locality (3). Lexington (1). Dallas Co., Dallas (1).

***Typocerus lunatus fractus*, new subspecies**

Figure 2

Typocerus lunulata Brimley, 1938, Insects of North Carolina, p. 213 (in part, western records only).

Typocerus lunatus Fattig, 1947, Emory Univ. Mus., Bull. 5, p. 19 (in part, northern records only).

Diagnosis.—Basal spots of elytra strongly constricted at the angle, usually separated into four small subtriangular or pyriform spots, these usually bright yellow in contrast to the more orange markings of the nominate subspecies.

Type specimens.—Holotype, U. S. Nat. Mus. No. 64108, from Blacksburg, Montgomery Co., Virginia, collected on July 8, 1948, by G. M. Bousch. Paratypes from Black Mountain, Cumberland Co., Tennessee (C.U. 1); Lake Toxoway, Transylvania Co., North Carolina (A.M.N.M. 1); and Blacksburg, Virginia (V.A.E.S. 3).

Distribution.—The Southern Appalachians and the middle and upper Mississippi Valley, west as far as the eastern edge of the Great Plains, north to Wisconsin. Intergradation with *T. l. lunatus* occurs in eastern Virginia and central North Carolina, and doubtless elsewhere on the inner edge of the Coastal Plain.

Material has been seen from the following localities:

DISTRICT OF COLUMBIA: Washington (10). MARYLAND: Anne Arundel Co., Odenton (4). VIRGINIA: Arlington Co., Glencaryn (2). Fairfax Co., Falls Church (5), Great Falls (1), no exact locality (1). Nelson Co., no exact locality (21). Botetourt Co., Bonsack (2). Montgomery Co., Blacksburg (5). NORTH CAROLINA: Polk Co., Tryon (3). Buncombe Co., Asheville (2). Swainsona Valley (2). Transylvania Co., Lake Toxoway (1). SOUTH CAROLINA: Oconee Co., Clemson (1). GEORGIA: Rabun Co., Clayton (1). Fulton Co., Atlanta (3). ALABAMA: no exact locality (6). MISSISSIPPI: Oktibbeha Co., Agricultural College (2). ARKANSAS: Marion Co., no exact locality (1). MISSOURI: St. Louis Co., St. Louis (11). No exact locality (1). TENNESSEE: Cumberland Co., Black Mountain (1). ILLINOIS: "S. Ill." (1). Woodford Co., Kappa (1). WISCONSIN: Monroe Co., Sparta (1).

The most curious facet of the distribution of this subspecies is its excessive scarcity in midland United States. It was not reported for Indiana by Blatchley, and Dr. Sanderson advises me that the Illinois Natural History Survey has but a single specimen from Illinois, taken many years ago. Knull treats *lunatus* in his survey of the Cerambycidae of Ohio, but cites no localities and I presume the species was included as a "probable" for the state. There appear to be no published records for West Virginia and Kentucky, and no specimens have been seen from either state. Yet fair sized series have been taken in Virginia and Missouri, and it may be that additional collections will prove the occurrence of the form in as yet unrepresented intervening areas.

THE APPLICATION OF THE NAME PLECTISCUS

(HYMENOPTERA, ICHNEUMONIDAE)

The generic name *Plectiscus* was proposed by Gravenhorst in 1829 (*Ichneumonologia europaea* 2: 978) for some small, slender ichneumonids. The genotype of *Plectiscus* was first designated by Westwood in 1840 (Introduction to the modern classification of insects 2: Synopsis of the genera . . . p. 58) as *Plectiscus impurator* Gravenhorst. There has nearly always been uncertainty about the zoological identity of this genotype, and hence about the proper application of the generic name *Plectiscus*. The subfamily name Plectiscinae, based on *Plectiscus*, is involved with the generic name.

In April, 1958, I was able to study Gravenhorst's personal collection at Wroclaw, Poland. Gravenhorst had one male and two females under the name *Plectiscus impurator*, none with locality labels. All fit the original description and appear to be the same species. I hereby designate the male as lectotype. In the same month I saw the Manger Collection in Berlin. Manger collected at Warmbrunn, one of the localities mentioned by Gravenhorst for *P. impurator*. His collection was determined largely by Gravenhorst, and in many cases contains syntypes of Gravenhorst species. In the Manger Collection four specimens are under the label *P. impurator*, none with locality labels. All of these appear to be near or the same as the species represented by the lectotype in Wroclaw, though two of the specimens are in such poor condition as to make determination difficult.

The species represented by the lectotype belongs in the genus *Leipantus*, subfamily Orthocentrinae. I hereby synonymize *Leipantus* Townes, 1945, under *Plectiscus* Gravenhorst, 1829, synonymize the subfamily name Plectiscinae under Orthocentrinae, and propose the subfamily name Microleptinae for Plectiscinae of authors. The name *Brephoctonus* Förster, 1868, has the same genotype as *Plectiscus* (designated by Förster, 1871), so is also a synonym of *Plectiscus*. The Nearctic *Deleter suffuscus* Davis, 1897, is hereby transferred from *Leipantus* to *Plectiscus*.

The name Microleptinae is based on the generic name *Microleptes* Gravenhorst 1829, which is the oldest generic name in the subfamily.

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